Ip Address-

To Identify the computer in a network, IP address is a logical address assigned to a computer

192.168.10.25

Network Gateway - It is a network device that act as a entry and exit point for communicating one network to another networks

Network ports -port number will be randomly generated by OS port range o to 65,533

NAT- Network address Translation

As you know Private ip address is not routable in internet

NAT help us in converting private IP to Public ip Vice versa

OSI- Open System interconnection

Computer networks - Types of network - LAN -MAN -CAN-PAN-WAN

A Computer network is a group of computer linked each other that enables the computer to communicate to the another computer to share the resource and data

Node - a Computer printer-cpu-iPhone any hardware is called node

Network devices -Network devices are electronic device that facilitate the connection between various node.

1.Hub

hub is a network device that will connect two or more devices and if you send the data it will broadcast to everyone or all nodes.so this is a dumb device.

2.switch

switch is a network device that will connect two or more devices. switch is a intelligent device that will identify the system whom you want to send

the message and the data sent to appropriate destination. And also it have the capable of reading the hardware addresses

3.router

Router is a network device that will connect two or more devices

It will identify the shortest path for sending the data from one location to another using routing protocol.

4.wifi

WiFi is a wireless networking technology that enables devices like smartphones, laptops, and tablets to connect to the internet or each other using radio waves, without physical cables.

Packets

what is packet? data comes from one location to anaother location in form of pactets

IP Packets - A Packets has three main section

* IP Header * TCP Header * Payload

Network protocol

Nework protocol is a set of rules which will followed by computer . All network devices also will follow the protocol to communicate to the another computer.

DNS-Domain name system process of transalating domain names to ip address vise versa

DHCP will do - Dynamic host configuration protocol. automatically assigned the ip address

TCP&UDP

Transmision control protocol & user datagram protocol

TCP - relaiable

TCP	UDP
Transmission Control Protocol	User Datagram Protocol
Connection Oriented	Connection Less
Acknowledgement for each packet transmitted	No Acknowledgement
Failed packets are retransmitted	No re-transmission
Guaranteed delivery	Best effort delivery
Reliable	Unreliable
TCP is slower	UDP is faster
Example: HTTP, HTTPS, SMTP, SSH etc.	Streaming Videos, VOIP Calls, Online Games etc.

Attacks

FILE LES

IPS-IDS

Antivirus

Host Firewall

EDR

DLP

Firewall

Email Gateway

Web Gateway

CIA

Cyber attacks

Threat intelligence

GRC

Vulnerability

DHCP- Dynamic host conficoration protocol

DNS - Domain Name System

ARP - Address Resolution protocol

IAM - identity accress management

what is cyber security